## MOBOTIX S16 AND M16 CAMERA SETUP

The Mobotix cameras do not require any additional software to run. Setup and operation is accomplished using a JavaScript-enabled browser on all common operating systems, such as Windows, Linux, Macintosh, etc. The following represent Fike recommended setup procedures.

Step 1     Set your PC IP address to the same LAN as the default IP address located on the back of the camera housing.

Step 2     Open an Internet browser and type the default IP address of the camera. The camera display screen will open and prompt you to change the **admin** user password.

Step 3     Enter a memorable password; then select **Check and apply…** to save the change. The software will indicate that the password was successfully changed.

Step 4     Click **OK** to display either the Mobotix S16 Live sensor views or the M16 sensor and camer views.

Step 5     From the Main Menu on the left side of the screen, click **Admin Menu**. A **Windows Security** dialogue box will be displayed.

Step 6     Type in the user name and password assigned in Step 3 and click **OK**. The Quick Installation wizard will start and the **Language** screen will be displayed.

Step 7     From the Language screen, use the pull-down box to select the language to be used. Select **en** for English. Click the next arrow [>] to advance to the **IP Video Door Station** screen.

Step 8     From the IP Video Door Station screen, click the next arrow [>] to advance to the **Introduction** screen.

Step 9     From the Introduction screen, click the next arrow [>] to advance to the **Factory Reset** screen.

Step 10    From the Factory Reset screen, select "**Dismiss current configuration…**" to reset the camera configuration to its factory defaults. Click on the next arrow [>] to advance to the **Security** screen.

Step 11    From the Security screen, select "**Set a new password for the admin user**". Enter password from Step 3. Click the next arrow [>] to advance to the **Public Access Settings** screen.

Step 12    From the Public Access Settings screen, select "**Deny public access**" to restrict public access. Click on the next arrow [>] to advance to the **Integration Protocols** screen

Step 13    From the Integration Protocols screen, use the pull-down box to select **ONVIF**. Click on the **n**ext arrow [>] to advance to the **Country Settings** screen.

Step 14    From the Country Settings screen, use the **Timezone** pull-down boxes to select **US** and **Central**. Click on the next arrow [>] to advance to the **Audio Settings** screen.

Step 15    From the Audio Settings screen, DO NOT select either box. Click on the next arrow [>] to advance to the **Camera Name** screen.

Step 16    From the Camera Name screen, type a unique name for the camera in the **Camera Name** field. Click on the next arrow [>] to advance to the **Ethernet Interface** screen.

Step 17    From the Ethernet Interface screen, select **Configure Ethernet interface manually**. Click on the next arrow [>] to advance to the second **Ethernet Interface** screen.

Step 18    From the second Ethernet Interface screen, type in the camera IP address 192.168.0.(last digits of the IP address) and type in the camera Network Mask 255.255.255.0 into the fields. Click on the next arrow [>] to advance to the **Default Route** screen.

Step 19    From the Default Route screen, make any required changes. Click on the next arrow [>] to advance to the **Domain Name Service (DNS)** screen.

Step 20    From the Domain Name Service screen, make any required changes. Click on the next arrow [>] to advance to the **Image Transfer to FTP Server** screen.

Step 21    No changes are required on the Image Transfer to FTP Server screen. Click on the next arrow [>] to advance to the **Store Configuration** screen.

Step 22    From the Store Configuration screen, click on **Store Configuration** to save the previously made settings. Once the configuration file is successfully stored, enter the user name and password in the pop up box. The **Reboot the Camera** screen will be displayed.

Step 23    From the Reboot the Camera screen, click **Reboot** to reboot the camera and enable the configuration settings. The **Waiting for the camera to reboot** screen will be displayed.

Step 24    Wait a few minutes for the camera reboot to complete, click **Close**. The software will not indicate when the reboot is complete.

Step 25    Set the PC's IP address to 192.168.0.1.

Step 26    From the **Main Menu** on the left side of the camera display screen, click **Setup Menu > General Image Settings.** Adjust the settings to match the following if the camera sensors are to be mounted upside down. Click **Set** and **Close** to accept settings and return to the camera display screen.

| Attribute | Value |
| --- | --- |
| Camera Selection | Both |
| Image Size | VGA (640x480) |
| Limit to Native Size | Unchecked |
| Image Quality | Normal |
| Frame and Data Rate | No limitation |
| Playback has Priority | Live and Pre-alarm image at 2 fps |
| Display Mode | Full Image (Left and Right) |
| Enlarge inset image | Uncheck (Left and Right) |
| Position of the inset image | Bottom right (Left and Right) |
| Mirror & Rotate Image | Do not mirror *(set to **Both** if mounting camera right-side up)* |
| Sharpness | 4 (Left and Right) |
| Automatic Sharpness Control | Enabled (default) |
| Noise Filtering (M16 only) | Set drop downs to Low and Off |
| Obscure Image Area (OA) | Off |

Step 27    From the **Main Menu** on the left side of the camera display screen, click **Setup Menu > Thermal Sensor Settings.** Adjust the settings to match the following. Click **Set** and **Close** to accept settings and return to the camera display screen.

| Attribute | Value |
|---|---|
| Thermal Overlay (M16 only) | Leave at default settings |
| Thermal Raw Data | Disabled |
| Color Palette | Rainbow (Left and Right) |
| Show Color Palette | Unchecked (Left and Right) |
| Linear Mode | Checked (Left and Right) |
| Temperature Compensation | Unchecked (Left and Right) |
| Value Range | Automatic (Left and Right) |
| Thermal Range | Enabled (Left and Right) |
| Allow Immediate Updates | Unchecked (Left and Right) |
| Update Speed | Medium (Left and Right) |
| Level of Detail | Low (Left and Right) |
| Temperature Control Area | Full Image Area (Left and Right) |
| Temperature Control Windows | Full Image (Left and Right) |
| Show Windows | Off |

Step 28    When prompted, click **OK** to permanently store the camera configuration.

Step 29    From the **Main Menu** on the left side of the camera display screen, click **Setup Menu > General Event Settings.** Use the scroll bar on the right-hand side of the screen to scroll down to **Arming** activity. Set the value field to **Enabled**. Click **Set** and **Close** to return to the camera display screen.

Step 30    From the **Main Menu** on the left side of the camera display screen, click **Setup Menu > Event Overview**. In the Passive Infrared Detector field, type "**Thermal Event**" and make sure that "**Inactive**" and "**Delete**" are unchecked for the thermal event. Check "**Delete**" on the remaining events (Microphone thru Time Task). Click **Set**. The screen should change to indicate "**No profiles defined**" for all events except the thermal event.

Step 31    Click **Edit** to open the Thermal Event zone configuration screen.

Step 32    Click the arrow next to the **Thermal Event** field to display the event settings. Adjust the settings to match the following.

| Variable | Value |
|---|---|
| Event Sensor Type | Thermal Radiometry |
| Edit Measurement Area | 0,0,0,1280,960 |
| Measurement Mode | Absolute Temperature |
| Trigger Mode | One Pixel |
| Alarm Type | Thermal Level |
| Temperature Unit | °F |
| Thermal Level | Enter the trigger temperature [-40 - 550°C][-40 - 1022°F] |
| Comparison | Higher than |
| Action Type | Every |
| Show Measurement Area | Auto |
| Show Thermal Radiometry Level Meter | Checked |

| Variable | Value |
|---|---|
| Show Thermal Radiometry Level Temperature | Black |
| Show Thermal Radiometry Level Coordinates | Off |
| Show Thermal Radiometry Level Crosshairs | Black |
| Show Thermal Radiometry Profile Name | Black |

Step 33    Click **Add New Profile** to create another profile with the same settings below the first. Title that profile **Thermal Event 2**. This is another zone for the 2nd sensor. More zones can be added to either sensor by adding more profiles. Click **Set** and **Close**.

**Note:** Each time a profile is added, a zone is automatically created on the camera display. The zone boundaries encompass the entire camera image by default.

**Note:** If working with the M16 more zones can be added to the one thermal view.

Step 34    To redefine the boundaries of the camera zones or to add more zones, click **Setup Menu > Event Overview** and edit the **Thermal Event** again. Minimize the Event Overview screen during the next several steps.

Step 35    To define the sensor zones, move the cursor over the sensor image where the zone is to be placed. Hold down the Shift button and click once to identify the first corner of the zone. Let off the Shift key and move the cursor to define the other opposite corner of the zone; then click once to set the zone boundary. A yellow box will appear to indicate the boundary of the zone. If you do not get the zone boundary in the correct spot you can try again, which will clear the previous boundary.

Step 36    Once the zone boundary is correctly defined, maximize the **Thermal Event**. Select the event the zone is to be associated with. Click **Set Rectangle** to assign the zone to the event type. The value displayed in the Edit Measurement Area field will change to reflect the limits of the zone boundary. Once **Set Rectangle** and **Set** are clicked, the zones yellow outline will change to black. Click **Close** to accept settings and return to the camera display screen.

Step 37    Repeat the previous step for all zones.

## MOBOTIX MX-232 RELAY SETUP

Step 1    Connect the MX-232 relay module to the S16 module.

Step 2    From the **Main Menu** on the left side of the camera display screen, click **Admin Menu > Hardware Configuration > Manage Hardware Expansions**. Click **Connect** next to the **MX-232-IO-Box**. The LED should turn green to indicate that the module is connected. Click **Set** and **Close**.

Step 3    From the **Main Menu** on the left side of the camera display screen, click **Admin Menu > Hardware Configuration > Signal Out Profiles**. Click **Add New Profile**.

Step 4    Click the arrow next to **Signal Out Profile 1** to display the profile variables. Adjust the settings to match the following. Click **Set** and **Close**.

| Options | Value |
|---|---|
| Signal Output Pin | MX-232-IO-Box (USB): Out1 |
| Signal Output Mode | On on alarm without timer |

Step 5      From the **Main Menu** on the left side of the camera display screen, click **Setup Menu > Action Group Overview** in the Event Control section. In the Arming column, use the pull-down box to change to **Enabled**. Click **Edit** to display the Action Group Details.

Step 6      Click **Add New Action** to create Action 2. Adjust the settings to match the following. Click **Set** and **Close**.

| Setting | Value |
|---|---|
| Action Group (Name) | VisualAlarm |
| Arming | Enabled |
| Time Table | (No time table) |
| Event Selection | (select all) |
| Action Details (Deadtime) | 1 |
| Action Chaining | Simultaneously |
| Action 1 (Type and Profile) | Visual Alarm: Red Frame |
| Action Timeout or Duration | 5 |
| Action 2 (Type and Profile) | Signal Out: Signal Out 1 |
| Action Timeout or Duration | 5 |

Step 7      From the **Main Menu** on the left side of the camera display screen, click **Setup Menu > Recording** in the Event Control section. Adjust the settings to match the following. All setting are default, you are just enabling and turning off audio. This setup will record event only. Click **Set, Close** and **OK**.

| General Setting | Value |
|---|---|
| Arming | Enabled |
| Time Table Profile | (No time table) |
| Digital Signing | Off |
| Recording Status Symbol | On |
| Terminate Recording (TR) | Off |
| Recording (REC) | Event Recording (mode) |
| Record Audio Data | Off |
| Start Recording | Select All |
| Event Frame Rate | Max fps |
| Recording Time Before Event | 0 |
| Recoding Time | 10 s |
| Retrigger Recording | (select none) |
| Stop Recording | (select none) |
| Recording Time After Stop Event | 10 s |
| Recording Dead Time | 5 |
| History Recording (HR) | Off |
| Image Profile for History | Live Image |
| Full Image Recording | Off |

## SHARED FOLDER RECORDING SETUP

Step 1      Create a folder on the server D: drive and label it "data".

Step 2      Right click on the 'data' folder to open the folder properties. Select the **Sharing tab > Advanced Sharing… > Permissions** to open the sharing permissions for data dialogue box.

Step 3      Select **Everyone**; then click **Add…**.

Step 4      In the Permissions for Everyone field, check the **Change** and **Read** boxes in the Allow column. Click **Apply** and **OK**.

Step 5      Right click on the 'data' folder to open the folder properties. Select the **Security** tab and click **Edit…**.

Step 6      Select **Everyone**; then click **Add…**.

Step 7      In the Permissions for Everyone field, check the **Modify** box in the Allow column. Click **Apply** and **OK**.

Step 8      From the **Main Menu** on the left side of the Mobotix camera display screen, click **Admin Menu > Storage on External File Server / Flash Device**.

Step 9      Use the **Primary Target** pull-down box to set the recording destination to **SMB/CIFS File Server**.

Step 10    Enter the server IP address **192.168.0.XX** in the File Server IP field.

Step 11    Enter the share directory '**data**' in the Directory/Share field.

Step 12    Adjust the remaining Windows credentials as needed. Click **Set** and **Close**.

## SAVING CAMERA CONFIGURATION

Step 1      From the **Main Menu** on the left side of the Mobotix camera display screen, click **Admin Menu > Store**.

Step 2      When prompted, click **Store Permanently**.

Step 3      You will receive positive indication that the configuration has been stored permanently. Click reboot to initiate the camera reboot sequence.

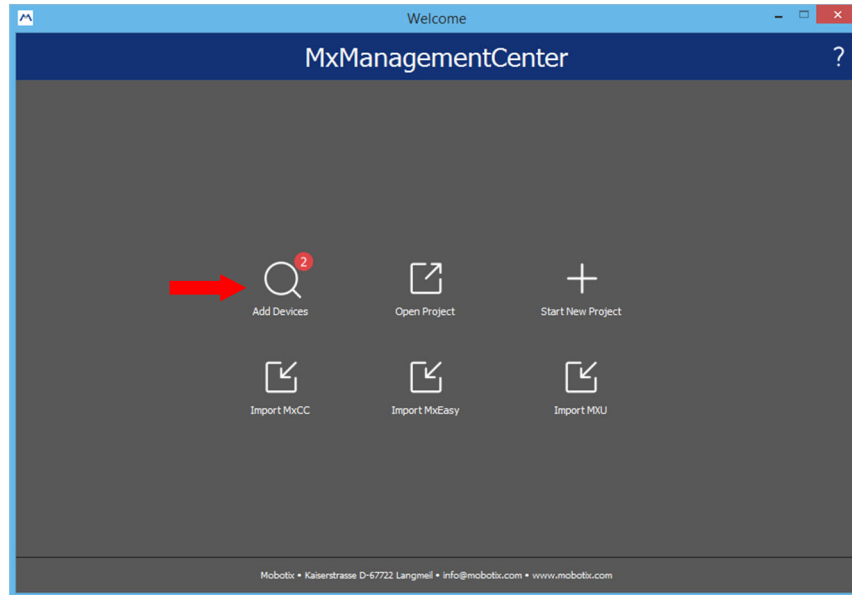Step 4      From the Reboot the Camera screen, click **Reboot Now**. A reboot screen will be displayed.

**Camera configuration is complete.**

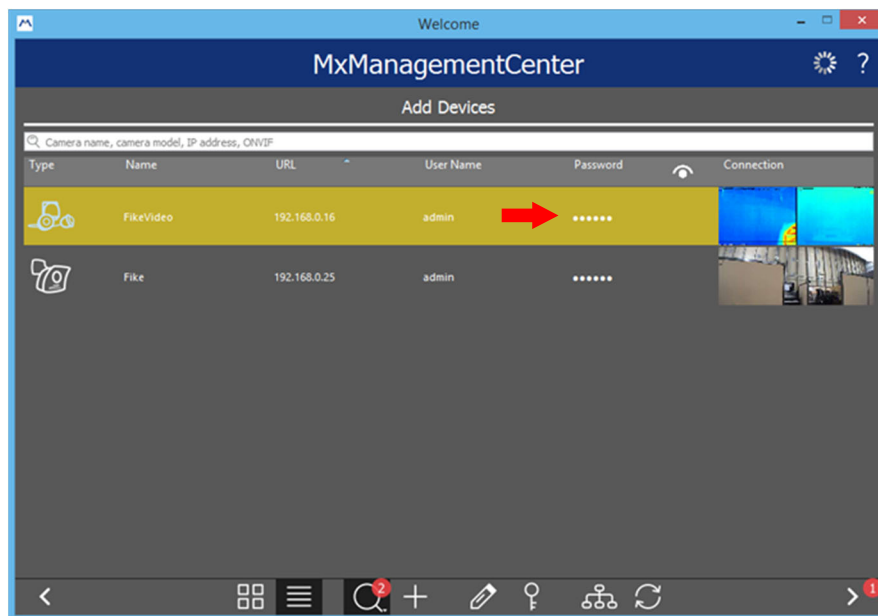# MX MANAGEMENT CENTER SETUP

Step 1    Click the MX Management Center icon on the desktop.
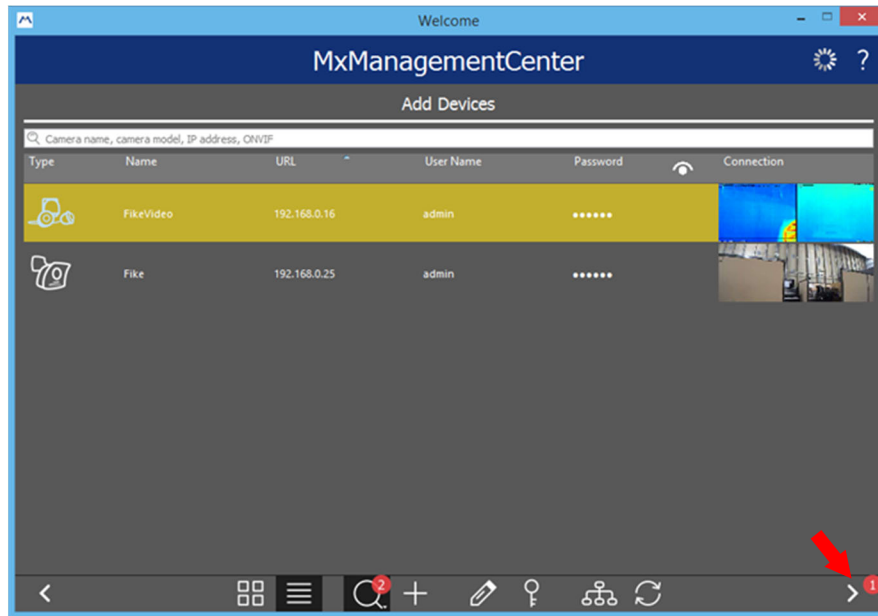


Step 2    Select **Add Devices** from the Welcome screen (below shows two cameras on the network).
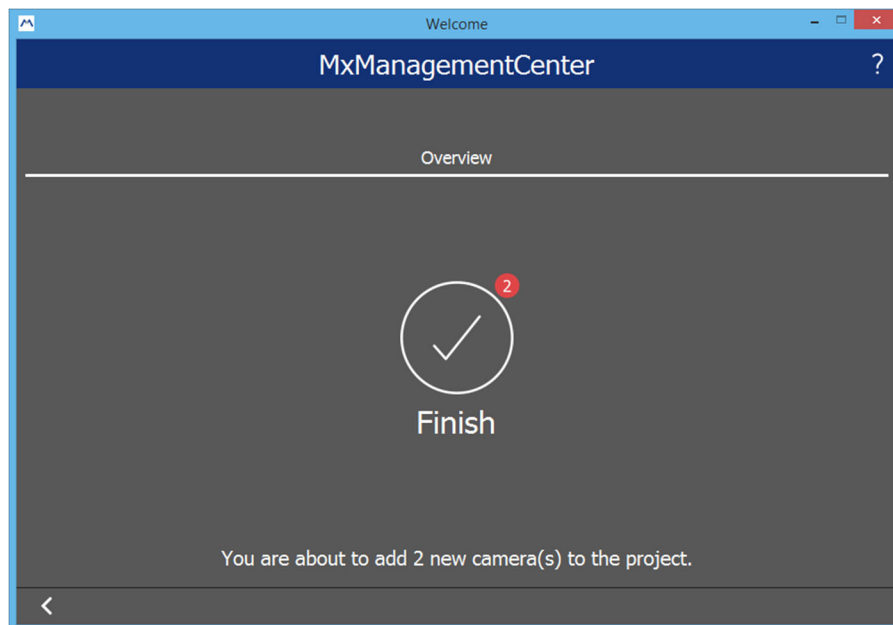


Step 3    Click on the first camera, then double-click the Password. Type the password. The camera image will be displayed. Repeat for the second camera.
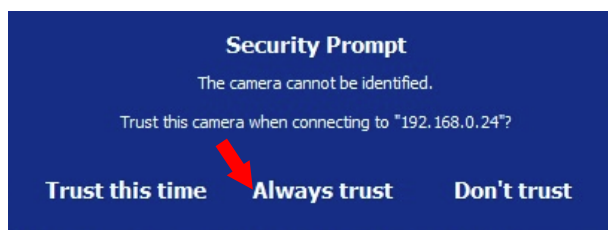
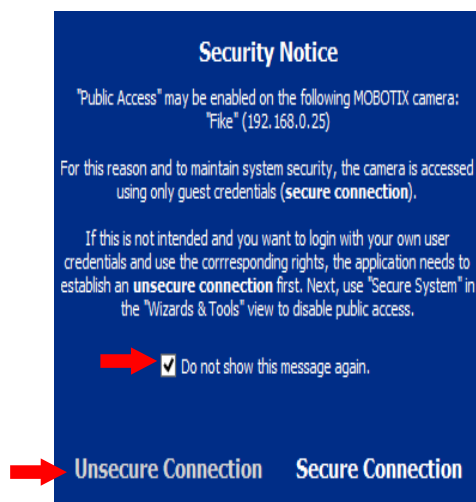Step 4    Hold control and select both cameras; then click the next arrow > located in the bottom right corner of the screen to advance to the Finish screen.
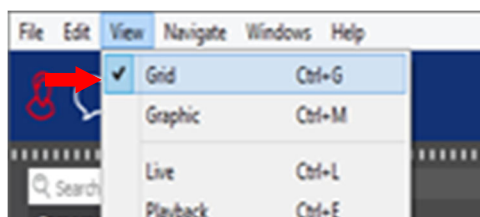


Step 5    From the Finish screen, click Finish.

Step 6    When the Security Prompt appears, click **Always Trust**.
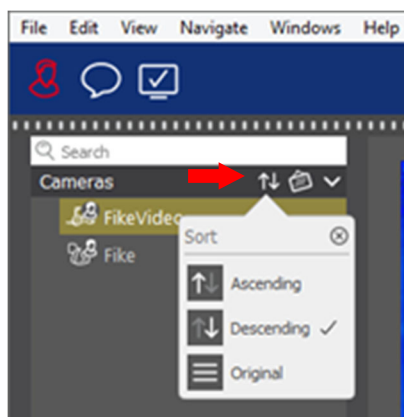


Step 7    If the Security Notice opens, check the '**Do not show this message again**' box; then click **Unsecure Connection**.
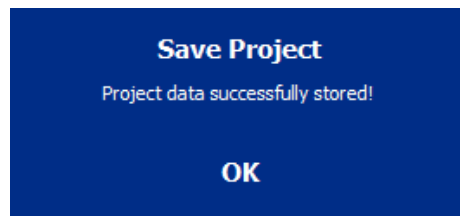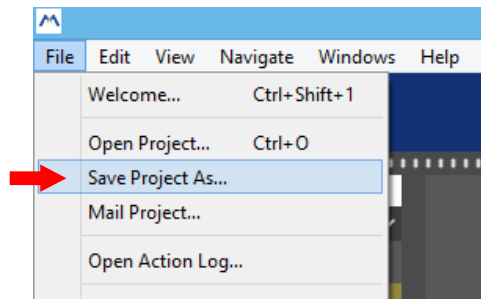


Step 8    From the MX Management Center main screen, select **View > Grid** from the main menu bar.



Step 9    Click the arrows above the cameras to descend or ascend for preference.

Step 10    Click **File > Save Project As**; then name the project and save the file.





Step 11    Press F11 to view the MX Management Center in full screen.

## The setup of the camera system is complete.

## SYSTEM VERIFICATION

Checklist

- ☐  Setup the camera IP address and password.
- ☐  Label each camera.
- ☐  Mount each camera in the designated area within 100 feet of the equipment to monitor.
- ☐  Configure environmental events (zones) for the specified areas.
- ☐  Modify temperature threshold levels for each zone to an agreed limit.
- ☐  Configure the action(s) that will take place (i.e., relay settings, etc.).
- ☐  Install Mobotix MX Management Center software on the monitoring station and add the cameras to the software.

## SYSTEM TESTING

When installation is complete, you can test the system in two ways:

1. Hold a heat source with a temperature level higher than the set trigger threshold(s) in front of the sensors.
2. Lower the temperature trigger threshold to activate the sensor with any heat source higher than the trigger set point.

After either test, verify that all outputs work properly.